

CLEAN COPY OF AMENDED CLAIMS

Amend claims 1 and 3-6 and add new claim 8 as follows:

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1. (amended) A process for the distillation of vinyl aromatic monomers in the presence of 4-tert-butylcatechol (TBC) and oxygen or an oxygen-containing gas wherein no aromatic nitro or amino compound is present in any effective amount to prevent polymerization.
 3. (twice amended) A process as defined in claim 1, wherein 4-tert-butylcatechol is fed to a distillation assembly concurrently with the vinyl aromatic monomer, the concentration of 4-tert-butylcatechol in the bottom mixture of the distillation assembly being in the range of from 200 to 15,000 ppm based on the vinyl aromatic monomer.
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4. (twice amended) A process as defined in claim 1, wherein the distillation is carried out under vacuum at temperatures ranging from 40° to 125°C.
 5. (twice amended) A process as defined in claim 1, wherein an oxygen-containing gas is metered into the bottom mixture of the distillation assembly through a gas spray.
 6. (twice amended) A process as defined in claim 1, wherein an oxygen-containing gas is metered in on the suction side of a circulating pump mounted upstream of a distillation assembly.
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8. (new) A process for destabilization and purification of styrene stabilized with 4-tert-butylcatechol, wherein styrene is evaporated in the presence of oxygen or an

oxygen-containing gas without addition of further polymerization inhibitors.